

NASA Glenn Research Center - Scoring Methodology for Environmentally Preferable Products					- Antiperspirants work by clogging, closing, or blocking pores. Deodorants neutralize smell. Antiperspirants usually stop about 20-30% of sweat.					Crystal (mineral salt, "rock") deodorants can last much longer than standard deodorants.		
					- It may be possible that aluminum compounds in antiperspirants might be absorbed through the skin. Studies have not yet confirmed absorption nor human health effects, such as concentration in the brain or an Alzheimers connection - an open question. But aluminum ingestion (not skin absorption) is our main route of exposure - unavoidable since aluminum is widely used (water treatment, cookware, medications, etc.).					Possible issues: - Alcohol can irritate skin, emulsifiers can clog pores, plant oils can stain clothes, perfumes can cause allergic reactions. - Propylene glycol is a petroleum derivative, and can irritate skin and absorb into skin, may defat skin. - For "rock crystal" (alum) deodorants, bauxite mining is an issue. Bauxite is mined for aluminum production anyway, so increases of mining for alum deodorants are minimal - plus additional processing after extraction is minimal. Nevertheless, mining causes land destruction, waste, and runoff.		
										Deodorant		
	= Affirmative Procurement (recycled content or biobased)					- Pricing is similar on all products						
	= Contains moderate amount of "red" chemicals, mod TRI, RCRA flam/corrosive											
	= Contains higher amount of HAP, certain RCRA, CERCLA, less mod SARA (TRI) chemicals, petroleum product (mining & nonrenewable)											
Product	Manufacturer	Env'l Issues	OSHA listed	T=Tested by GRC	Method of application (spray = waste / propellant /	# of ingredients (nat resources process'g, pkg'g & shipping)	Container packaging (plastic contains no dyes)	Packaging (other than container) - recyclable?	No petroleum-based or hazardous chemical contents	Comments	Vendor links:	Northeast Ohio availability
Deodorants - stick (6 types available)	Jason Natural Cosmetics			T	Stick	4 Avg	All recycled content plastic	No other packaging	All "natural"	Most with corn starch (absorbs wetness), Vit E (anti-bacterial/odor), and various plant oils	<a href="http://www.jasoncosmetics.com/jasdeodorants.html">http://www.jasoncosmetics.com/jasdeodorants.html</a>	Food Co-op, Wild Oats, Nature's Bin, Heinen's
Deodorants - roll-on (5 types available)	Jason Natural Cosmetics				Roll-on	4 Avg	All #2 recyclable plastic	No other packaging	All "natural"	Most with corn starch (absorbs wetness), Vit E (anti-bacterial/odor), and various plant oils (neutralize odor).	<a href="http://www.jasoncosmetics.com/jasdeodorants.html">http://www.jasoncosmetics.com/jasdeodorants.html</a>	Wild Oats

Thai Crystal Rock - Plain solid rock	Deodorant Stones of America (PETA member)			T	Solid rock	1	Shrink-wrapped in cellophane - NO PLASTIC	No other packaging	Only one mineral ingred.	Made from naturally-occurring alum (salt-form - not metallic aluminum) - mineral crystals. (See bauxite mining, above.) The salts form a layer of protection from bacteria that cause odor. <b>This rock form lasts 8-9 months or more.</b>	<a href="http://www.deodorantstones.org/item7132.ctlg">http://www.deodorantstones.org/item7132.ctlg</a>	Food Co-op
Thai Crystal Rock - Push-up	Deodorant Stones of America (PETA member)				Stick	1	Unknown plastic type. Information unavailable	No other packaging	Only one mineral ingred.	Made from naturally-occurring alum (salt-form - not metallic aluminum) - mineral crystals. (See bauxite mining, above.) The salts form a layer of protection from bacteria that cause odor. <b>This rock</b>	<a href="http://www.deodorantstones.org/productCat17039.ctlg">http://www.deodorantstones.org/productCat17039.ctlg</a>	Food Co-op, Wild Oats
Deodorant - plain solid rock	French Transit Ltd				Solid rock	1	Light cardboard box made of recycled paper.	No other packaging	Only one mineral ingred.	Made from naturally-occurring alum (salt-form - not metallic aluminum) - mineral crystals - and water. (See bauxite mining, above.) The salts form a layer of protection from bacteria that cause odor. <b>This rock form lasts a year or more.</b>	<a href="http://www.thecrystal.com/">http://www.thecrystal.com/</a>	Nature's Bin
Deodorant - stick	French Transit Ltd				Stick	1	All #2 recyclable plastic	No other packaging	Only one mineral ingred.	occurring alum (salt-form - not metallic aluminum) - mineral crystals - and water. (See bauxite	<a href="http://www.thecrystal.com/">http://www.thecrystal.com/</a>	Nature's Bin, Wild Oats

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